

REMARKS/ARGUMENT

Claims 1, 2 and 5-18, 20, 21 and 23-26 are currently pending.

The Office Action rejected (1) claims 1, 2, 15, 23 and 24 under 35 U.S.C. § 103 as obvious over U.S. patent 4,107,019 (“Takao”) in view of U.S. patent 6,521,098 (“Lin”); (2) claims 5, 6, 25 and 26 under 35 U.S.C. § 103 as obvious over Takao, Lin, and U.S. patent 5,981,092 (“Arai”); (3) claims 7-14 under 35 U.S.C. § 103 as obvious over Takao, Lin, Arai, and U.S. patent 5,522,976 (“Campet”); (4) claims 16-18 under 35 U.S.C. § 103 as obvious over Takao, Lin, Fujii, and U.S. patent 5,831,760 (“Hashimoto”); (5) claim 20 under 35 U.S.C. § 103 as obvious over Takao, Lin, and IBM technical disclosure; and (6) claim 21 under 35 U.S.C. § 103 as obvious over Takao, Lin, and U.S. patent 5,905,590 (“Van Der Sluis”). In view of the following comments, Applicants respectfully request reconsideration and withdrawal of these rejections.

The Office Action recognized that Takao does not teach a target that is comprised predominantly of nickel oxide or a magnetically enhanced sputtering device for sputtering a nickel oxide target. (Office Action at 3).

Moreover, Takao does not teach the required oxygen deficient NiO_x of the claimed invention. Takao’s target is a “compacted powder mixture of Ni and NiO.” Such a powder mixture differs from the required oxygen deficient NiO_x of the claimed invention, for example, in that in a mixture like Takao’s the two materials are not chemically linked -- they are two separate chemical compounds in a solid state. In stark contrast, oxygen deficient

NiOx is one chemical compound in which atoms are covalently linked. Thus, Takao's powder cannot be an oxygen deficient NiOx as required by the present invention.

Further, Takao's mixture would be expected to have different properties such as, for example, different conductivity properties as compared to the NiOx compounds of the present invention given that, in Takao's mixture, NiO would be expected to dump the conductivity given that the NiO is on a microscopic scale. Only an oxygen deficient compound such as those required in the present invention would have the required conductivity.

Finally, no evidence exists to indicate that the nickel oxide in Takao's powder is oxygen-deficient with respect to the stoichiometric composition NiO as required by the claims. The "compacted powder mixture" should not be considered to be an oxygen-deficient nickel oxide. Rather, based on the sparse disclosure in Takao, the target appears to be a simple mixture of two different powders which have not reacted with each other -- one powder is Ni and the other is NiO, a non oxygen-deficient nickel oxide. Takao's nickel oxide is simply "NiO" which is not oxygen-deficient.

Lin cannot compensate for Takao's fatal deficiencies. Lin does not disclose the required oxygen deficient NiOx of the present invention.

The secondary and tertiary applied references do not compensate for Lin's and Takao's fatal deficiencies. Nothing in any of the references would have motivated one of ordinary skill in the art to modify the disclosures in Takao or Lin to yield an acceptable target in a magnetically enhanced sputtering device as required by the pending claims, and/or to

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modify them in such a way as to yield a target having oxygen deficiency and/or the electrical resistivity set forth in the claims.

In view of the above, Applicants respectfully request reconsideration and withdrawal of the pending rejections under 35 U.S.C. §103.

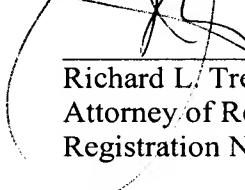
Applicants believe that the present application is in condition for allowance. Prompt and favorable consideration is earnestly solicited.

Respectfully submitted,

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